

FEDERAL COMMUNICATIONS COMMISSION 445 12th STREET S.W. WASHINGTON D.C. 20554

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Report No. SES-02013

Wednesday November 29, 2017

Satellite Communications Services Information

re: Actions Taken

The Commission, by its International Bureau, took the following actions pursuant to delegated authority. The effective dates of the actions are the dates specified.

SES-LIC-20170804-00861 E E170171 Spire Global, Inc.

Application for Authority 11/27/2017 - 11/27/2032

Granted in Part/ Deferred in Part Date Effective: 11/27/2017

Class of Station: Fixed Earth Stations

Nature of Service: Earth Exploration Satellite Service, Mobile Satellite Service, Other

This application was granted in part and deferred in part on November 27, 2017. Spire was granted authority to operate this earth station located in Charlotte, NC, with the LEMUR (S2946) NGSO satellite constellation system in the 402-403 MHz (Earth-to-space & space-to Earth) and the 2020-2025 MHz (space-to-Earth) frequency bands. Spire's requests for waiver of the U.S. Table of Frequency Allocations to use the 402-403 MHz (Earth-to-space & space-to Earth) band and to use the 2020- 2025 MHz band (space-to-Earth) band on a non-conforming, non-harmful interference basis was granted. Action on Spire's request to operate in the 449.75-450.25 MHz (Earth-to-space) frequency band and Spire's request for waiver of the U.S. Table of Frequency Allocations to use the 449.75-450.25 MHz on a non-conforming, non-harmful interference, subject to agreement obtained under ITU-R No. 9.21 was deferred.

SITE ID:

LOCATION: 5821 Fairview Road Suite G12/18, Charlotte, NC

 $35 \circ 9 ' 8.28 " N LAT.$ $80 \circ 50 ' 29.62 " W LONG.$

ANTENNA ID: 1 1.85 meters M2 401CP14SG

402.0000 - 403.0000 MHz 15K0F1D 0.00 dBW Digital/Data Downlink and TT&C

Downlink

ANTENNA ID: 2 2.46 meters TACO H-105

449.7500 - 450.2500 MHz 15K0F1D 33.25 dBW Digital/TT&C Uplink

ANTENNA ID: 3 1.2 meters ARA; Seavey C1502;800

2020.0000 - 2025.0000 MHz 5M00D1W 0.00 dBW Digital/Data Downlink

Points of Communication:

1 - LEMUR NGSO (S2946) - (NGSO)

SES-LIC-20170804-00864 E E170148 Spire Global, Inc.

Application for Authority 11/27/2017 - 11/27/2032

Grant of Authority Date Effective: 11/27/2017

Class of Station: Fixed Earth Stations

Nature of Service: Earth Exploration Satellite Service, Mobile Satellite Service

On November 27, 2017, Spire Global Inc. was granted authority to operate its fixed earth station in Juneau, AK with the LEMUR (S2946) NGSO satellite constellation system in the 402-403 MHz (Earth-to-space & space-to Earth) and the 2020-2025 MHz (space-to-Earth) frequency bands. Spire's requests for waiver of the U.S. Table of Frequency Allocations to use the 402-403 MHz (Earth-to-space & space-to Earth) band and to use the 2020- 2025 MHz band (space-to-Earth) band on a non-conforming, non-harmful interference basis was granted.

SITE ID: JNUGS2

LOCATION: 1050 Harbor Way, Juneau, AK

58 ° 18 ' 6.69 " N LAT.

134 ° 25 ' 35.06 " W LONG.

ANTENNA ID: UHF-1 1.85 meters M2 Antenna Systems 401CP14

402.0000 - 403.0000 MHz 15K0F1D 31.50 dBW Digital/TT&C Uplink

402.0000 - 403.0000 MHz 15K0F1D 0.00 dBW Digital/Data Downlink and TT&C

Downlink

ANTENNA ID: SBAND-1 1.2 meters ARA − Seavey C1502−800

2020.0000 - 2025.0000 MHz 5M00D1D 0.00 dBW Digital/Data Downlink

Points of Communication:

JNUGS2 - LEMUR NGSO (S2946) - (NGSO)

SES-LIC-20170804-00865 E E170149 Spire Global, Inc.

Application for Authority 11/27/2017 - 11/27/2032

Grant of Authority Date Effective: 11/27/2017

Class of Station: Fixed Earth Stations

Nature of Service: Earth Exploration Satellite Service, Mobile Satellite Service

On November 27, 2017, Spire Global Inc. was granted authority to operate its fixed earth station in Tucson, AZ with the LEMUR (S2946) NGSO satellite constellation system in the 402-403 MHz (Earth-to-space & space-to Earth) and the 2020-2025 MHz (space-to-Earth) frequency bands. Spire's requests for waiver of the U.S. Table of Frequency Allocations to use the 402-403 MHz (Earth-to-space & space-to Earth) band and to use the 2020- 2025 MHz band (space-to-Earth) band on a non-conforming, non-harmful interference basis was granted.

SITE ID: TUSGS

LOCATION: 1215 E Pennsylvania Street, Tuscon, AZ

32 ° 10 ' 20.28 " N LAT. 110 ° 57 ' 14.94 " W LONG.

ANTENNA ID: UHF-2 1.85 meters Innov 405-18-R

402.0000 - 403.0000 MHz 15K0F1D 0.00 dBW Digital/Data Downlink and TT&C

Downlink

ANTENNA ID: SBAND-2 1.2 meters Elite 999001

2020.0000 - 2025.0000 MHz 5M00D1D 0.00 dBW Digital/Data Downlink

Points of Communication:

TUSGS - LEMUR NGSO (S2946) - (NGSO)

SES-LIC-20170804-00866 E E170150 Spire Global, Inc.

Application for Authority 11/27/2017 - 11/27/2032

Granted in Part/ Deferred in Part Date Effective: 11/27/2017

Class of Station: Fixed Earth Stations

Nature of Service: Earth Exploration Satellite Service, Mobile Satellite Service, Other

This application was granted in part and deferred in part on November 27, 2017. Spire was granted authority to operate this earth station located in Duluth, MN with LEMUR (S2946) NGSO satellite constellation system in the 402-403 MHz (Earth-to-space & space-to Earth) and the 2020-2025 MHz (space-to-Earth) frequency bands. Spire's requests for waiver of the U.S. Table of Frequency Allocations to use the 402-403 MHz (Earth-to-space & space-to Earth) band and to use the 2020-2025 MHz band (space-to-Earth) band on a non-conforming, non-harmful interference basis was granted. Action on Spire's request to operate in the 449.75-450.25 MHz (Earth-to-space) frequency band and Spire's request for waiver of the U.S. Table of Frequency Allocations and to use the 449.75-450.25 MHz on a non-conforming, non-harmful interference, subject to agreement obtained under ITU-R No. 9.21 was deferred.

SITE ID: 1

LOCATION: 3401 Technology Drive, Duluth, MN

46 ° 49 ' 39.38 " N LAT. 92 ° 7 ' 49.82 " W LONG.

ANTENNA ID: 1 1.85 meters Innov 405-18-R

402.0000 - 403.0000 MHz 15K0F1D 29.95 dBW Digital/TT&C Uplink

 $402.0000 - 403.0000 \ MHz \qquad \qquad 15K0F1D \qquad \qquad 0.00 \ dBW \qquad \qquad Digital/Data \ Downlink \ and \ TT\&C$

Downlink

ANTENNA ID: 2 2.46 meters TACO H-105

449.7500 - 450.2500 MHz 15K0F1D 33.25 dBW Digital/TT&C Uplink

ANTENNA ID: 3 1.2 meters ARA; Seavey C1502;800

 $2020.0000 - 2025.0000 \ \mathrm{MHz} \qquad \qquad 5\mathrm{M00D1W} \qquad \qquad 0.00 \ \mathrm{dBW} \qquad \qquad \mathrm{Digital/Data} \ \mathrm{Downlink}$

Points of Communication:

1 - LEMUR NGSO (S2946) - (NGSO)

SES-MOD-20171002-01094 E E080100 Row 44 Inc.

Application for Modification

Grant of Authority Date Effective: 11/22/2017

08/05/2009 - 08/05/2024

Class of Station: Other

Nature of Service: Fixed Satellite Service, Other

SITE ID: Remotes 1

LOCATION: AeroSat Avi CONUS, +TERR, INTERNATIONAL WATERS

ANTENNA ID: AeroSat Av 0.6 meters AeroSat Avionics 70-100-0000-01

SITE ID: Remotes2

LOCATION: TECOM CONUS,+ TERR, INTERNATIONAL WATERS

ANTENNA ID: T	ECOM	0.62 meters	TECOM		Ku-Stream
14050.0000 -	14470.0000 MHz	1M600	G7D	41.30 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	6M40C	G7D	43.80 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	1M600	G7D	38.80 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	3M200	G7D	43.80 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	3M200	G7D	41.80 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	1M600	G7D	36.00 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	1M600	G7D	41.30 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	3M200	G7D	43.80 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	1M200	G7D	42.80 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	2M04C	G7D	42.80 dBW	QPSK OR OCTAL PSK
14050.0000 -	14470.0000 MHz	4M090	G7D	42.80 dBW	QPSK OR OCTAL PSK
12250.0000 -	12750.0000 MHz	36M0C	G7D		QPSK OR OCTAL PSK
11450.0000 -	12200.0000 MHz	36M0C	G7D		QPSK OR OCTAL PSK
11200.0000 -	11450.0000 MHz	36M0C	G7D		QPSK OR OCTAL PSK
10950.0000 -	11200.0000 MHz	36M0C	G7D		QPSK OR OCTAL PSK
10950.0000 -	11200.0000 MHz	36M0C	G7D		QPSK OR OCTAL PSK

SITE ID: Remotes3

LOCATION: QEST CONUS,+ TERR, INTERNATIONAL WATERS

ANTENNA ID:	QEST	0.63 meters	QEST		Q050000
14050.000	00 - 14470.0000 MH	z 4M09	G7D	41.90 dBW	QPSK OR OCTAL PSK
14050.000	00 - 14470.0000 MH	z 2M04	G7D	41.90 dBW	QPSK OR OCTAL PSK
14050.000	00 - 14470.0000 MH	z 1M02	G7D	41.90 dBW	QPSK OR OCTAL PSK
12200.000	00 - 12500.0000 MH	z 36M0	G7D		QPSK OR OCTAL PSK
11700.000	00 - 12200.0000 MH	z 36M0	G7D		QPSK OR OCTAL PSK
11450.000	00 - 11700.0000 MH	z 36M0	G7D		QPSK OR OCTAL PSK
11200.000	00 - 11450.0000 MH	z 36M0	G7D		QPSK OR OCTAL PSK
10950.000	00 - 11200.0000 MH	z 36M0	G7D		QPSK OR OCTAL PSK

Points of Communication:

Remotes1 - AMC 9 (S2434) - (83 W.L.)

Remotes1 - HORIZONS 1 - (127 WL)

Remotes1 - SES-1 - (101.0 W.L.)

Remotes2 - AMC 2 - (84.85)

Remotes2 - AMC 9 (S2434) - (83 W.L.)

Remotes2 - AMC-1(S2445) - (129.15)

Remotes2 - AMC-3 - (72 W.L.)

Remotes2 - E117 WA (S2873) - (116.8 W.L.)

Remotes2 - ESTRELA DO SUL 2 - (63 W.L.)

Remotes2 - EUTELSAT115WA(S2589) - (114.9 W.L.)

 $Remotes 2 - EUTELSAT115WB(S2938) - (114.9\ W.L.)$

Remotes2 - HORIZONS 1 - (127 WL)

Remotes2 - INTELSAT 19 (S2850) - (166.0 E.L.)

Remotes2 - INTELSAT 29e (S2913) - (50.0 W.L.)

Remotes2 - SES-1 - (101.0 W.L.)

Remotes2 - SES-10 (S2950) - (66.9 W.L.)

Remotes2 - SES-6 (S2870) - (40.5 W.L.)

Remotes2 - TELSTAR 11N (S2357) - (37.5 W.L.)

Remotes2 - Telstar 12 (S2462) - (109.2)

Remotes3 - AMC 2 - (84.85)

Remotes3 - AMC 9 (S2434) - (83 W.L.)

Remotes3 - AMC-1(S2445) - (129.15)

Remotes3 - AMC-3 - (72 W.L.)

Remotes3 - EUTELSAT115WB(S2938) - (114.9 W.L.)

Remotes3 - INTELSAT 29e (S2913) - (50.0 W.L.)

Remotes3 - SES-1 - (101.0 W.L.)

Remotes3 - SES-10 (S2950) - (66.9 W.L.)

Remotes3 - Telstar 12 (S2462) - (109.2)

SES-REG-20171009-01118 E E170186 Comcast Cable Communications Management, LLC

Registration 08/03/2017 - 08/03/2032

Grant of Authority Date Effective: 11/27/2017

Class of Station: Fixed Earth Stations

Nature of Service: Fixed Satellite Service

SITE ID:

LOCATION: Hwy 64 B West, Crittenden, Earle, AR

35 ° 16 ' 6.30 " N LAT. 90 ° 29 ' 11.40 " W LONG.

ANTENNA ID: 5M. 5 meters SCIENTIFICA-ATLANTA, INC. 8008B (5METER)

3700.0000 - 4200.0000 MHz 36M0G7W Digital Data Carrier

Points of Communication:

1 - PERMITTED LIST - ()

SES-REG-20171009-01119 E E170187 Comcast of Perry Inc

Registration 08/03/2017 - 08/03/2032

Grant of Authority Date Effective: 11/27/2017

Class of Station: Fixed Earth Stations

Nature of Service: Fixed Satellite Service

SITE ID:

LOCATION: 21217 East Green Street, Taylor, Perry, FL

30 ° 6 ' 22.30 " N LAT. 83 ° 33 ' 41.20 " W LONG.

ANTENNA ID: 7M. 7 meters Microdyne 7 meter

3700.0000 - 4200.0000 MHz

36M0G7W

Digital Data Carrier

Points of Communication:

1 - PERMITTED LIST - ()

SES-REG-20171009-01120 E E170188 Comcast of Colorado/Florida/Michigan/New Mexico/Pennsylvania/Washington, L

Registration 08/03/2017 - 08/03/2032

Grant of Authority Date Effective: 11/27/2017

Class of Station: Fixed Earth Stations

Nature of Service: Fixed Satellite Service

SITE ID: 1

LOCATION: 5205 Fruitville Rd, Sarasota, Sarasota, FL

27 ° 20 ' 19.50 " N LAT. 82 ° 27 ' 56.20 " W LONG.

ANTENNA ID: 10M. 10 meters SCIENTIFIC-ATLANTA, INC. 8002-SHORT MOUNT

3700.0000 - 4200.0000 MHz 36M0G7W Digital Data Carrier

Points of Communication:

1 - PERMITTED LIST - ()

SES-STA-20171016-01172 E KA258 Intelsat License LLC

Special Temporary Authority

Grant of Authority Date Effective: 11/28/2017

Class of Station:

On November 28, 2017, Intelsat License LLC was granted special temporary authority for 180 days, beginning November 28, 2017, to operate its fixed earth station in Hagerstown, MD to provide telemetry, tracking and command (TT&C) services to the Intelsat 16 (S2750) satellite at the 76.2° W.L. orbital location on the following center frequencies: 13.9975 GHz and 14.4995 GHz (Earth-to-space), and 12.19825 GHz and 12.19875 GHz (space-to-Earth).

Points of Communication:

For more information concerning this Notice, contact the Satellite Division at 418-0719; TTY 1-888-835-5322.